UNIVERSITY OF BOLTON

WESTERN INTERNATIONAL COLLEGE FZE

MSc INFORMATION TECHNOLOGY

SEMESTER ONE EXAMINATION 2018/19

SYSTEMS THEORY AND PRACTICE

MODULE NO: MIT4108

Date: Friday 18th January 2019   **Time: 1:00pm – 3:00pm**

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INSTRUCTIONS TO CANDIDATES: There are **FOUR** questions on this paper.

Answer any **THREE** questions.

All questions carry equal marks.

Marks for parts of questions are shown in the brackets.

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MSc Information Technology
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Systems Theory and Practice
Module No. MIT4108

Question 1

a) Critically analyze different categories of risks with the help of relevant examples. What are the risk drivers that affect software components?

(10 Marks)

b) Find Risk Exposure (RE) for an upcoming project with 52 percent of the software components scheduled can be reused and the remaining functionality will have to be custom developed. Risk probability for the project will be 55% when assuming the total number of component is 85. As a system analyst you can decide the average LOC and cost.

(15 Marks)

Total 25 marks

Question 2

a) Draw and explain the architecture of SAP model. Illustrate how the technical characteristics that allowed SAP to achieve their position as market leader?

(15 Marks)

b) Elucidate the concepts within the Viable Systems Model approach; assess the extent to which this model can tackle complex enterprise situation.

(10 marks)

Total 25 marks

Please turn the page

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Question 3

a) Draw the swim lane diagram for Sales Order Processing system.

(8 Marks)

b) Draw and elucidate generic data warehouse architecture with its typical components.

(10 Marks)

c) Illuminate information evolution in data ware housing.

(7 Marks)

Total 25 marks

Question 4

a) "The business process is required to be reengineered" Justify the reasons. Also, elucidate the steps involved in Business Process Reengineering?

(10 marks)

b) Fast Flight Airlines is a small air carrier operating in three northeastern states of India. Fast Flight is in the process of computerizing its passenger reservation system. The following data attributes have been identified: reservation code, flight number, flight date, origin, destination, departure time, arrival time, passenger name, seat number, reservation agent number and reservation agent name. Draw the LDM model for the Fast Flight airlines.

(15 marks)

Total 25 marks

END OF QUESTIONS